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In a further aspect, the invention provides a cell comprising increased expression of a $Bcl-x_L$ gene and a gene encoding a protein of interest, and does not express a heterologous cyclin-dependent kinase inhibitor, wherein the cell produced an increased amount of a protein of interest as compared to a cell that does not comprise increased expression of the $Bcl-x_L$ gene.

The invention includes a cell comprising an increased amount of Bcl-x_L protein, where the cell does not express a heterologous cyclin-dependent kinase inhibitor. The cell can be a mammalian, rodent, insect, or amphibian cell, such as a human, murine, or hamster cell (e.g., a Chinese hamster ovary cell). In addition, the cell can be adapted for growth in suspension or for growth in a medium free of serum (e.g., fetal bovine serum). The medium used for culturing the cell, whether free of serum or not, can further contain butyrate (e.g., sodium butyrate) to increase protein yields.

The Bcl- x_L protein can be expressed from an expression vector introduced into the cell or made to overexpress the endogenous $Bcl-x_L$ gene of the cell, e.g., by inducing the endogenous promoter of the gene. The Bcl- x_L protein can be of a species different than that of the cell. For example, as shown below, the human Bcl- x_L protein can be expressed in Chinese hamster ovary cells to obtain the cells and methods of the invention.

The cells of the invention, as described immediately above, are especially useful for robust production of proteins, either already produced by the cell or exogenously produced by introducing of an expression vector encoding the protein (e.g., a secreted protein). Where the cells of the invention are used to express a cloned monoclonal antibody, the cell can contain one vector that expresses both the heavy and light chain or two vectors, each expressing a heavy or light chain.

Accordingly, the invention further includes a method of producing a polypeptide by culturing a cell of the invention and purifying the polypeptide from the cell culture.

Any publications or other documents cited in this disclosure is hereby incorporated by reference.

Brief Description of the Drawings

Fig. 1 \mathbf{X} is a schematic representation of the $Bcl-x_L$ -neo plasmid, a non-limiting vector of the invention. The expression of $Bcl-x_L$ in this vector is driven by the CMV

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